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# PART I - SECTION C STATEMENT OF WORK

### C.1 GENERAL

# C.1.1 Objective

The objective of this contract is to establish a Cost Plus Fixed Fee, Level of Effort, Task Order, Term Type contract for National Airspace System (NAS) support services that will enable the Federal Aviation Administration (FAA) program offices to accomplish their mission objectives. Since the NAS encompasses far more than the FAA's infrastructure, this contract allows for studies of systems that may never be owned by the FAA. The resulting contract is designed to provide a broad range of Systems Engineering, Investment and Business Case Analysis, Planning, Forecasting and Business/Financial/Information work that may not fall under the guise of the FAA's Acquisition Management System (AMS). The scope further defines this demarcation. This Statement of Work (SOW) is comprised of specific functional task areas that establish the scope of this contract. Specific requirements within the scope of these functional task areas will be identified, defined, and issued under individually funded specific Task Orders.

# C.1.2 Background

- (a) With the expected growth in air traffic operations and our aging infrastructure, the FAA, in collaboration with its aviation partners, other federal agencies/departments, foreign entities, and users of the NAS and the larger national air transportation system, has begun the task of transforming the NAS to meet the future demands expected between now and 2025. This effort is called the Next Generation Air Transportation System (NextGen). NextGen goals are laid out in the Integrated National Plan (December 2004) and include: enhancing the passenger experience from curb-to-curb; increasing capacity and efficiency through modernized and near real-time air traffic management capabilities/techniques/procedures; reducing operational ownership costs and environmental impacts; reducing the impact of weather on air travel through a system-wide capability for enhanced weather observations and forecasts; modifying or enhancing existing aircraft certification requirements and regulations; securing and defending the air transportation system against emerging threats; and ensuring our leadership position in managing the safest and most efficient air transportation system in the world.
- (b) In order to accomplish NextGen, as well as other non-NextGen aviation related activities, a portfolio of contract support services vehicles is being let under the title of Systems Engineering 2020 (SE-2020). The scope of the support services of SE-2020 is in direct

- support of U.S. aeronautics development and the transformation of the national air transportation system through 2020.
- (c) The transformation to this vision will not be made by the FAA alone. It requires other member Federal agencies, as well as partnerships of public sector (FAA, airport authorities, state/local governments, etc.), private sector (airlines, manufacturers, etc.), and academic institutions to create a world-class consortium focused on identifying solutions for implementing NextGen. The FAA is committed to transforming the aviation system in conjunction with the membership of the Joint Planning and Development Office (JPDO). The JPDO is a multi-agency public/private initiative that includes the Departments of Transportation, Defense, Commerce, and Homeland Security, as well as the FAA, the National Aeronautics and Space Administration (NASA), and the White House Office of Science and Technology Policy (OSTP). The NextGen vision is an integrated evolutionary plan to take the FAA beyond ground-based radar technology and voice direction into the second century of aviation using modern technology; updated procedures and new equipment; satellite-based operations; updated communications and automation; and improved weather and traffic management capabilities. To better understand the JPDO and the organizational entities and cooperation necessary to succeed in this endeavor, see http://www.jpdo.gov.
- (d) To realize this vision, the FAA must make coordinated improvements on multiple fronts. The NextGen Implementation Plan will be the mechanism by which the FAA holds itself accountable to its owners, customers, and the aviation community for progress toward the NextGen vision. See http://www.faa.gov/NextGen.
- (e) The NAS Enterprise Architecture (EA) aggregates and describes the research and systems needed to achieve the goals of the FAA for the NAS, and serves as the basis to evaluate and document needed upgrades. The NAS EA provides a description of the specific NAS systems and subsystems undergoing research and development, production, or those planned for future development. The NAS Architecture recognizes that maintenance and upgrade efforts of the numerous NAS systems and facilities is a continuing integrated process rather than a singular effort culminating in a final end-state system design. The FAA's NAS Architecture can be found at <a href="http://www.nas-architecture.faa.gov/nas/home.cfm">http://www.nas-architecture.faa.gov/nas/home.cfm</a>.

# C.2 SCOPE

# C.2.1 General

(a) The scope of this contract covers Systems Engineering, Program Planning and Financial Management activities that occur throughout the Acquisition Management System (AMS) Life Cycle Management. The majority of Systems Engineering activities under this contract

are expected to occur after the AMS Life Cycle Acquisition Management Concept and Requirements Definition Readiness Decision and before the Solution Implementation (see AMS Sections 2.3.4 thru 2.4.4).

- (b) The FAA AMS can be found at http://fast.faa.gov/index.html.
- (c) This contract does not cover AMS Life Cycle Management activities before the Concept and Requirements Definition Readiness Decision that are research activities, or activities after the Final Investment Decision that are Full-Scale Development, maintenance of NAS systems, or program management support for Program Offices responsible for fielding and/or maintaining NAS systems.

# C.2.2 Task Order Management

- (a) Task Order management is a mandatory element for all Task Orders placed under this contract. Task Order management must provide the appropriate program management and project control necessary to manage the Task Order; ensure that the cost, schedule and quality requirements for each Task Order are continually tracked and the status communicated to the FAA; and ensure that each Task Order is successfully completed.
- (b) The Contractor must furnish the necessary personnel, materials, equipment, facilities, travel, and other services required to satisfy the requirements of specific individual Task Orders.

### **C.2.3** Applicable Documents

Applicable FAA/DOT orders, process guidelines, and military standards will be specified and identified as references within the individual Task Orders.

# **C.2.4** Government Furnished Property

All Government Furnished Property (GFP), to include information, material, and equipment, will be specified within the individual Task Orders. All GFP is the property of the Government and will not be transferred to any individual or agency, public or private, without the express written approval of the Contracting Officer, except as required for the specific performance of the Task Orders.

# **C.2.5** Security Requirements

Security requirements, applicable to the work to be performed under each Task Order, will be identified within the individual Task Orders. Additional security clearances may be needed for specific Task Orders. Candidates identified for performance under those Task Orders must hold or be eligible to obtain the requisite security clearance.

#### C.2.6 Data Deliverables

Specific technical data requirements may be included in the individual Task Orders issued under this contract, either as an item in a Contract Data Requirements List (CDRL) or specified in the SOW of the Task Order.

# **C.2.7** Quality Management Support and Compliance

- (a) Certain Task Orders may include activities that require Contractors to support the FAA in complying with various Quality systems or models. Examples of Quality systems or models include but are not limited to:
  - Various International Organization for Standardization (ISO) standards such as:
    - o ISO-9001, and
    - ISO-14001 (which is affiliated with Environmental Management Systems (EMS));
  - Safety Risk Management / Safety Management System; and
  - Capability Maturity Model Integration (CMMI).
- (b) Some Task Orders may require the Contractor to assist the FAA in meeting their compliance or to support the FAA in becoming compliant.
- (c) Other Task Orders may require the Contractor to be compliant. If there is requirement included in a Task Order that a Contractor be compliant, it will be up to the Contractor, utilizing subcontractors as appropriate, to assure that the Quality Management support or compliance requirements are met.

### **C.2.8** Protection of Human Participants

The Contractor must ensure the safety and well-being of all human subjects taking part in FAA-sponsored or FAA-conducted scientific research under any Task Order for which the Contractor is providing support, and must adhere strictly to the provisions of the Federal Policy for the Protection of Human Subjects (49 CFR Part 11).

# C.2.9 Core Capabilities

The following, in alphabetical order, are descriptions of the Core Capabilities. Some of the Core Capabilities are techniques that the Contractor will be required to use when performing tasks within the functional task areas, while others are capabilities that the Contractor must provide in order to perform the SOW requirements.

- 1. Air Traffic Management (ATM) Automation: Technical knowledge and experience in NAS ATM automation systems (e.g. Automated Radar Terminal System (ARTS), Standard Terminal Automation Replacement System (STARS), Common ARTS (CARTS), Host Computer System (HOST), En Route Automation Modernization (ERAM), Traffic Flow Management System (TFMS), and Advanced Technologies and Oceanic Procedures (A-TOP)(Ocean 21)) to include awareness of international system development trends and latest developments.
- **2. Air Traffic Rules and Procedures**: Technical and operational knowledge and experience in current procedures and policies, and technical and operational experience in developing proposed rules and procedures related to Air Traffic operations in the NAS.
- **3. Airspace Design and Analysis**: Technical knowledge and experience in airspace analysis, design/redesign, test, procedure development and configuration recommendations.
- **4. Avionics Systems:** Technical knowledge and experience in the systems engineering and testing activities of avionics systems, their functions, capabilities and interface requirements, and associated standards compliance requirements.
- **5. Business Process Re-engineering**: Technical knowledge and experience in identifying inefficiencies, including duplication within an organization, making recommendations for improvement, and establishing relationships with other organizations.
- **6. Communications**: Technical knowledge and experience in ground-, air-, and satellite-based communication systems, standards, policies, and procedures.
- 7. Cost Benefit Analysis: Technical knowledge and experience in preparation of rough order of magnitude cost-benefit analysis and the conducting of life cycle cost and benefit analyses for individual and grouping of concepts commensurate with the scope and level of maturity of the concept.
- **8. Enterprise Architecture Products**: Technical knowledge and experience in the development of Enterprise Architecture products in the area of aviation.
- 9. Fast-Time Modeling and Simulation: Technical knowledge and experience in the design, development, testing and execution of fast-time modeling and simulation using appropriate/validated tools. Focused on the development of foundational methods and tools for addressing problems characterized as system-of-systems. Establishment of an effective frame of reference, crafting of a common lexicon, and study of various modeling and simulation techniques, including probabilistic robust

- design (including uncertainty modeling/management), agent-based modeling, network theory, object oriented simulations, and tools for capturing the interaction of requirements, concepts, and technologies.
- **10. Human Factors**: Technical knowledge and experience to identify the physical, cognitive, and social behavior characteristics of human interactions within the aviation system environments.
- **11. Human–in-the-Loop Simulations**: Technical knowledge and experience to simulate and evaluate human interactions within aviation environments in dynamic situations.
- **12. Information Technology**: Technical knowledge and experience in the development, implementation, and life cycle support of information systems used in NAS and non-NAS Systems.
- **13. Integrated Laboratories**: Technical knowledge and experience in the design, development, operation, and maintenance of integrated aviation laboratories and test beds.
- **14. Investment Analysis**: Technical knowledge and experience in providing Investment Analysis cost studies for large scale government type programs.
- **15. NAS Air Traffic Facilities**: Technical knowledge and experience in the operations, maintenance, and certification of various types, kinds, and functions of NAS Air Traffic facilities.
- **16. Navigation**: Technical knowledge and experience in ground-, air-, and satellite-based navigation systems, standards, policies, and procedures.
- 17. Operational Concept Development and Validation: Technical knowledge and experience of the activities performed to support concept development and validation. Concept development is characterized as the process that describes, evaluates, and prepares a proposed capability, technology or procedure. Validation activities help quantify and qualify the operational feasibility and expected benefits of the concept.
- **18. Program Management**: Technical knowledge, experience and activities in the management of scope, cost, schedule, quality, and stakeholder requirements.
- **19. Program Planning & Financial Analysis**: Technical knowledge and experience in providing support to large organizational programs pertaining to planning and financial analysis.
- **20. Requirements Definition**: Technical knowledge and experience in defining requirements for aviation related systems and activities.

- **21. Security:** Technical knowledge and experience in researching and designing and developing policies, procedures, standards, and systems to ensure the security of the NAS including:
  - 1. NAS and relevant non-NAS information systems;
  - 2. Air Traffic Management operations and crisis response (both internal and external to the FAA);
  - 3. Technical knowledge of National Institute of Standards and Technology (NIST) federal and special publications; particularly those providing details for FAA compliance with the Federal Information Security Management Act of 2002; and
  - 4. Technical knowledge and experience in the seventeen (17) control families defined in NIST SP 800-53.
- **22. Service-Oriented Architecture**: Technical knowledge and experience in designing and developing procedures and systems which provide network centricity and service orientation to NAS and non-NAS systems.
- **23. Standards Development**: Technical knowledge and experience in the development and implementation of both national and international technical aviation standards (e.g., FAA, RTCA and ICAO standards).
- **24. Surveillance**: Technical knowledge and experience in ground-based, air-based, and satellite-based surveillance systems, standards, policies, and procedures.
- **25. System Safety**: Technical knowledge and experience with FAA and International Safety Risk Management / Safety Management Systems (SRM/SMS).
- **26.** Unmanned Aircraft Systems (UAS) Operations: Technical knowledge and experience with the operations of all classes of UAS and the ability to analyze and recommend strategies for the integration of UAS into NAS operations.
- **27. Weather**: Technical knowledge and experience associated with detection, collection, processing, analysis, and dissemination of weather and the integration of weather data into automated decision-aiding systems to support weather avoidance.

#### C.3 FUNCTIONAL TASK AREAS

# **C.3.1** System Engineering Management

As tasked, the Contractor must support all activities associated with planning, managing, supporting, executing, and maintaining system engineering processes, programs and work, which includes, but is not limited to the following:

- Drafting the Systems Engineering Management Plan (SEMP), specification tree, the program risk analysis, the decision control process, system planning, technical performance measurement, technical reviews, subcontractor and vendor reviews, work authorization, and technical documentation control;
- Measuring and improving the effectiveness and efficiency of system engineering processes; and
- Integrating technical planning to provide program management with specific guidance and direction on how to execute a requirement-based and structurally managed program.

# **C.3.2** Preliminary Program Requirements (pPR)

As tasked, the Contractor must support system engineering activities associated with translating information in the Mission Needs Statement (MNS) into Initial Preliminary Program Requirements IRD (pPR) documents, consistent with the Operational Concept. It also includes the Requirements Correlation Matrix and the Mission Need Correlation Matrix as defined by the AMS.

# **C.3.3** System Requirements and Definition

As tasked, the Contractor must support all activities associated with transforming the performance requirements of a Final Program Requirements (fPR) document into draft specifications and a preferred solution configuration. This system engineering effort, which is applicable to each component of the solution throughout the program life cycle, includes drafting and maintaining design criteria, and preparing and maintaining system-level data flows, block diagrams, change proposals, and documentation trees. This includes, but is not limited to, the following activities:

Supporting requirements management activities to identify and manage the
requirements that describe the desired characteristics of the system. The
Requirements Management process defines, collects, documents, and manages all
requirements, including the complete requirements set consisting of the MNS, the
pPR and fPR documents, and the system and procurement specifications;

- Supporting risk management activities to identify and analyze the uncertainties of achieving program objectives and developing plans to reduce the likelihood and consequences of those uncertainties. Risk management is applied throughout the acquisition management life cycle to 1) identify and assess risk areas, 2) develop and execute risk mitigation or elimination strategies, 3) track and evaluate mitigation efforts, and 4) continue mitigation activity until risk is eliminated or its consequences reduced to acceptable levels;
- Supporting life cycle engineering to identify and manage requirements for system life cycle attributes, including real estate management, deployment and transition, integrated logistics support, sustainment/technology evolution, and disposal;
- Supporting functional analyses to describe the functional characteristics based on stakeholders' needs, using functional flow diagramming as a representative structured analysis process, and to translate the needs into a sequenced and traceable functional architecture; and
- Supporting the synthesis of alternatives to define design solutions to identify systems that will satisfy the requirements baseline. Synthesis translates the requirements, as set in context by the Functional Architecture, into the design architecture, consisting of the Physical Architecture with its associated technical requirements.

# C.3.4 Analysis, Design, and Integration

As tasked, the Contractor must provide support to program office(s) in charge of hardware, software, telecommunications, user functions, services, and facilities which includes, but is not limited to, the following:

- Overall analysis;
- Design and integration;
- Test and evaluation;
- Intra-system and inter-system compatibility assurance; and
- Allocation of functional capabilities.

### **C.3.5** Value Engineering

As tasked, the Contractor must support the analysis of current designs versus alternative designs in order to provide the following:

- Value added and cost reduction of alternative architectures;
- Performance of trade studies and detailed analysis to develop a series of design alternatives/viable approaches; and

 Recommend the most balanced technical solution(s) among a set of proposed viable solutions.

# C.3.6 Supportability, Maintainability, and Reliability Engineering

As tasked, the Contractor must support all engineering activities and analyses undertaken during solution development as part of the engineering and design effort, to assist in complying with supportability and other logistics support objectives. These activities include, but are not limited to, the following:

- Supportability analyses identifying the most cost effective system support over the entire life cycle;
- Maintenance planning activities associated with measuring the ability of an item or solution to be retained or restored to a specific condition of readiness;
- Reliability engineering to define the engineering processes required to examine the
  probability of a solution to perform its mission over the intended period of
  performance and under expected operation conditions; and
- Requisite engineering, scientific, and analytical disciplines to ensure that systems and platforms to be developed, deployed, and maintained in the NAS include Reliability, Maintainability and Availability (RM&A) requirements within their design, development, and life cycle.

### **C.3.7** Quality Assurance Program

As tasked, the Contractor must support all activities associated with planning, establishing procedures, evaluating and testing that is required during procurement, production, receipt, storage, and issue that are necessary to develop the solution in accordance with identified standards and specifications. This includes, but is not limited to, the following:

- Validation of analyses activities to provide the required level of fidelity and accuracy
  in a timely manner. An Analysis Management Plan that outlines the details of the
  various analysis methods and tools is either generated or incorporated into the
  program plan; and
- Validation and verification activities to support a determination that the system and process requirements are correct, have been met, and that the system is ready for use in the operational environment for which it is intended (i.e., that the system requirements are unambiguous, correct, complete, consistent, operationally and technically feasible, and verifiable). There are two categories of verification: test and

assessment. Test is the disciplined and controlled subjection of the system requirements to conditions that replicate operations in a real or simulated action. Assessment includes analysis, demonstration, inspection, and verification by similarity, validation of records, simulation, and review of design documentation.

# **C.3.8** Configuration Management

As tasked, the Contractor must support all activities associated with establishing and maintaining the consistency of a product's performance, functional, and physical attributes with its requirements, design, and operational information throughout its life. This includes the establishment, monitoring, and administration of change control procedures, including collecting, processing, distributing, and tracking modification request forms; establishment and administration of change control boards, and formal audits to compare product to documentation. It also includes configuration management of hardware, software, facilities, data, interfaces, tools, and documentation.

# C.3.9 NAS Information Security (INFOSEC) Support

As tasked, the Contractor must support FAA efforts to address the security of information and computing resources to include, but not be limited to, the identification, evaluation and proposal of candidate technical security solutions for both existing and future NAS Systems. The Contractor must support the FAA Security Certification and Authorization Package (SCAP) as defined in FAA Order 1370.83. Additionally, NAS INFOSEC Support includes, but is not limited to:

- Assessing the vulnerability of NAS and other FAA/DOT systems to unauthorized access, use, or susceptibility to sabotage, and assessing system security threat survivability;
- Analyzing the source and impact of incursions/attempted incursions;
- Identifying and implementing necessary corrective responses;
- Protecting proprietary information to which the Government and its users have access:
- Maintaining security policies/procedures for NAS systems and subsystems;
- Analyzing and prioritizing security measure enhancements and/or upgrades for all operational NAS systems;
- Verifying and analyzing security features incorporated in new or modified systems;
- Administering the security (physical and INFOSEC) of software development and distribution platforms;

- Addressing security policies and procedures for the development, maintenance and support of the NAS EA Framework with an emphasis on the Information System Security (ISS); and
- Developing and securing all required ISS NAS EA views, datasets and/or databases, and participation in NAS EA working groups.

# **C.3.10** Non-NAS Information Systems Security

As tasked, the Contractor must provide support in the area of non-NAS systems security which includes, but is not limited to, the following:

- Performing security risk analyses;
- Identifying potential information security threats;
- Recommending mitigation procedures for the identified threats;
- Supporting the FAA SCAP process; and
- Developing all required Information System Security (ISS) non-NAS EA views, datasets and/or databases, the secure storage of the aforementioned, and participation in FAA non-NAS EA working groups as assigned.

# **C.3.11** System Safety Engineering and Management

As tasked, the Contractor must provide the following support:

- Planning, conducting, documenting, identifying, classifying, analyzing, assessing hazards, identifying safety threats, and associated risks;
- Measures to mitigate hazards or reduce risk to an acceptable level, verification that
  mitigation measures are incorporated into product design and implementation, and
  assessment of residual risk;
- Assess the predicted efficacy of identified mitigation procedures/techniques and the expected impacts upon NAS system operations;
- Establish and maintain safety policies and procedures for NAS systems and subsystems, examples of which are below:
  - Assess safety capabilities and levels of effectiveness for all operational NAS systems;
  - Develop maintenance and support of the FAA Enterprise Architecture Framework with a strong emphasis on the System Safety portions;
  - Development and secure storage of all required Safety NAS EA views, datasets and/or databases;
  - o Participation in FAA NAS EA working groups;

- Analysis and prioritization of safety measure enhancements or upgrades for all operational NAS systems; and
- Verify and analyze safety features incorporated in new or modified systems.

# **C.3.12** Other System Engineering Specialties

- (a) As tasked, the Contractor must support specialty engineering disciplines to include but not be limited to:
  - Analysis of system requirements, functions, solutions, and/or interfaces using specialized skills and tools;
  - Derivation of requirements;
  - Synthesis of solutions; and
  - Selection of alternatives.
- (b) Further details of specialty engineering can be found at <a href="http://www.faa.gov/about/office\_org/headquarters\_offices/ato/service\_units/operations/sysen\_gsaf/seman/">http://www.faa.gov/about/office\_org/headquarters\_offices/ato/service\_units/operations/sysen\_gsaf/seman/</a>

# **C.3.13** NAS Enterprise Architecture Support

As tasked, the Contractor must support the development and maintenance of the NAS Enterprise Architecture (EA) to include, but not be limited to, the following:

- Supporting artifacts that describe the evolution of the NAS EA;
- Development and maintenance of "FAA road maps" and milestones;
- Development of operational analyses and studies;
- Support of strategic and program mission and investment analysis activities;
- Analysis, tracking, and reporting of connections and dependencies between the research and development portfolios, the NAS EA, the NextGen portfolio, and other U.S. and International research and development programs;
- Development of operational concepts for NextGen and their translation into capabilities, operational improvements, and performance requirements for NextGen;
- Development and maintenance of an integrated suite of applications and tools, including a web-based administrative application, to input, collect, organize, maintain, modify, display and distribute NAS EA information;
- Development of evolution and transition strategies of the NAS EA; and

• Identifying and assessing NextGen capability alternatives and concepts that address JPDO system issues, shortfalls, technological defects, risks, and other issues.

### **C.3.14** Technology Opportunities Support

As tasked, the Contractor must support activities associated with identifying, quantifying, and keeping abreast of potential technological opportunities for supporting the NAS services. This includes being cognizant of existing Commercial-Off-The-Shelf (COTS) hardware/software systems, emerging technologies, and the potential for technology transfer of research outcomes to enable the FAA to continue to perform its mission in a safe, efficient, and cost effective manner.

### C.3.15 Test Resources

As tasked, the Contractor must develop and/or test prototypes, provide test equipment, simulation and modeling software/tools, and test support resources in support of FAA system engineering activities.

# **C.3.16** Laboratory Facilities

As tasked, the Contractor must plan, design, document, and maintain laboratory facilities in support of FAA System Engineering activities.

### **C.3.17** Portfolio Management

As tasked, the Contractor must support efforts to optimize the FAA's investment portfolio. The Investment Decision Authority (IDA) and its subordinate review boards evaluate new investment opportunities for inclusion in a service portfolio, on-going investment programs within the portfolio, and the efficiency and effectiveness of operational portfolio assets that include, but are not limited to, the following:

- Investment Selection;
- Investment Control; and
- Operational Evaluation.

### C.3.18 Life, Earned Investment and Business Case Analyses

As tasked, the Contractor must support a full range of investment analysis activities that include, but are not limited to, the following:

- Business Case Development and Integration;
- Life Cycle Cost Estimation;
- Operations Research and Benefits Estimation; and
- Policy, Standards, Training and Special Studies.

# **C.3.19** Forecasting and Strategy Development

As tasked, the Contractor must support quantitative analysis through the use of simulations, models, tools, forecasts, and other analytical techniques. Support may include, but not be limited to, the following areas:

- System and Service Delivery Point (SDP) forecasts;
- Scenario forecasting;
- Trend analysis;
- Metrics development;
- Operational impact analysis;
- Operations planning analysis;
- FAA/industry/academia coordination;
- Business Outlook:
- Business Plan interface:
- Strengths, weaknesses, opportunities, and threats (SWOT) analysis;
- Business Trends & updates;
- Modeling, simulation & analysis;
- Strategy position papers;
- Strategic analysis briefings; and
- Updates of Strategy, Strategy 2013.

# **C.3.20** Business Planning

As tasked, the Contractor must support the analysis, formulation, documentation, and maintenance of business plans. Support may include, but is not limited to, the following:

- Preparation, production, and maintenance of the ATO Business Plan; and
- ATO strategic management process and ATO business planning analysis.

# **C.3.21** Performance Analysis

As tasked, the Contractor must support the planning, development and evaluation of FAA and broader NextGen performance measurement activities (facility level and system wide). This support may include, but is not limited to, the following:

- Internal and external education and coordination of performance measures (including definitions and methodology);
- Accuracy of data collection and analysis;
- Implementation of new metrics;
- Alignment of metrics to DOT and FAA measures and goals (e.g., Strategy 2013 objectives) and broader NextGen goals;
- Selection of Critical-To-Quality (CTQ) measures;
- Identifying Key Performance Indicators (KPIs);
- Assessing the system/process stability and capability of the FAA service;
- Modeling support; and
- Technical and analytical support for planning, development, and evaluation of metrics.

# **C.3.22** Contract Management

As tasked, the Contractor will provide management oversight support services to ensure the effective and efficient accomplishment of all tasks issued under this contract.

### **C.3.23** Policy Studies

As tasked, the Contractor will draft policy studies, including but not limited to analysis of policy and organizational issues inherent in the NextGen transformation, development of alternatives, analysis of trade-offs between competing goals, stakeholder analysis, conflict identification and resolution.

### C.3.24 Program Planning and Financial Management

As tasked, the Contractor must provide services to support FAA financial management and planning activities, which may include, but are not limited to, the following:

- Corporate Work Plan (CWP);
- Capitalization and Audit Functions;
- Interagency Agreement Support;
- Capital Investment Team (CIT);
- Budget and Financial Planning and Analysis;

- Acquisition Baseline Management;
- Cost Analysis and Accounting; and
- Agency Plan Development (e.g. National Aviation Research Plan (NARP), Capital Investment Plan (CIP) and other agency plans).

# **C.3.25** Program Management Support

As tasked, the Contractor must provide support for FAA program activities associated with business and administrative planning, organizing, directing, coordination, controlling, and approval actions designed to accomplish overall program objectives. These may include, but are not limited to, the following:

- Program/project planning, scheduling, and tracking;
- Developing OMB 300 artifacts;
- Risk identification and mitigation planning; and
- Developing and maintaining technical and financial program baselines.

# **C.3.26** Program Management System Tools

- (a) The FAA uses a number of automated program management tools that may require operational, maintenance and automation support. These program management tools are currently primarily ORACLE and web-based applications.
- (b) As tasked, the Contractor must provide support to maintain, host, and update FAA Program Management Tools that include, but are not limited to, the following:
  - Regional Information System (REGIS) Provides "cuff records" for financial management for the Operations (OPS) appropriation;
  - Corporate Work Plan (CWP) Supports prioritization, planning and scheduling for systems deployment, implementation and capitalization;
  - Financial Management System (FMS) Provides procurement tracking, and budget execution for the facilities and equipment (F&E) appropriation;
  - Research, Engineering and Development Acquisition and Management System (REDMACS) – Provides full financial and personnel management for the R,E&D appropriation;
  - Budget Execution Tool (BET) Provides budget allocation planning and execution for the OPS appropriation;
  - Standard Automating Processing System (SAPS) Staffing and personnel management;

- Personnel Compensation and Benefits Model (PCB Model) Provides detailed salary forecasting capability for budget formulation under various staffing assumptions;
- Simplified Program Information, Reporting and Evaluation (SPIRE) Provides F&E budget formulation, project baseline management and performance tracking, RPDs, and monthly reporting of ATO progress supporting flight plan goals;
- Cost Accounting System (CAS) Supports analysis of business rules for the cost allocation process and develops recommendations for system enhancements to improve the usability of cost reports for management decision making; and
- Reimbursable Toolset Supports development, maintenance, and enhancement of automated systems, tools and processes required to meet requirements for reimbursable funds control and management reporting.

# C.3.27 Information Systems Development and Maintenance

As tasked, the Contractor must provide information technologies support that includes, but is not limited to, the following:

- Providing database design, development, operation and maintenance;
- Evaluating computer and communication security;
- Designing, developing and maintaining specified web sites;
- Providing multi-media, graphic design, and implementation; and
- Hosting, maintaining, and upgrading commercial and FAA developed automated applications and models.

### C.3.28 Training

As tasked, the Contractor must design, develop and provide training that includes, but is not limited to, the following:

- Automated systems, applications and models utilization;
- Investment Analysis;
- Financial system utilization; and
- Procedural and policy implementation.

### C.3.29 Business Process Re-engineering (BPR)

(a) Business Process Re-engineering (BPR) is a process improvement initiative intended to identify inefficiencies and duplication of activities within an organization's mission to reduce overall operational costs. It also establishes strategic business relationships with industry,

national and international government agencies, and global air navigation service providers (ANSPs) that leverage FAA core competencies to promote global cost effectiveness and operational efficiency.

- (b) As tasked, the Contractor must support Business Process Re-engineering activities that include, but are not limited to, the following:
  - Defining and benchmarking an organization's mission and business processes;
  - Identifying process inefficiencies in meeting organizational missions;
  - Identifying cost and operational efficiencies;
  - Recommending changes to core business processes;
  - Developing workforce and automation tools; and
  - Developing plans, costs, models and schedules for recommended changes or tool development.